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MULTIMODAL TRANSPORT AND TRADING OPPORTUNITIES

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ABBREVIATIONS

ASEAN Association of South-East Asian Nations

CIF Cost-insurance-freight

EDI Electronic data interchange

EXW Ex-works

FCFA Franc CFA

FOB Free-on-board

FTA (Canada-United States) Free Trade Agreement

GATT General Agreement on Tariffs and Trade

GDP Gross domestic product

JIT Just-in-time

MT Multimodal transport

MTO Multimodal transport operator

NAFTA North American Free Trade Agreement

INTRODUCTION

(i) Pursuant to the New Partnership for Development: the Cartagena Commitment, adopted at the eighth session of the Conference, it was agreed, in the terms of reference of the Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries: Shipping, annexed to Board decision 398(XXXVIII), that the Standing Committee would focus, *inter alia*, on "the efficient conduct of multimodal transport processes, bearing in mind economic, commercial and legal aspects".[1]

(ii) In its work programme, the Standing Committee, with regard to the field of multimodal transport, technological development and containerization, agreed to "analyse the impact of multimodal transport systems and tariffs on trading opportunities in the context of liberalization and privatization. The need to encourage commercially and economically effective joint-venture multimodal transport operations should be taken into account in such an analysis".[2]

(iii) This report illustrates some of the main impacts of multimodal transport on trade. Trade is essential to any production-consumption cycle. From raw material or commodity, through intermediate manufacturing or processing, up to the final consumer product, goods are subject to a number of sales/purchase transactions. Each of these transactions constitutes a trading opportunity not only for the buyer and the seller, but also for any third-party services provider concerned by the transaction.

(iv) As the result of a transaction, goods are moved to a new place where they will be transformed, stored and made ready for the next transaction. There is hardly any trade without transport, and transport may become an hindrance to trade for various reasons: (1) non-availability or excessive cost; (2) non-suitable transport-related commercial practices or customs of the trade; and (3) a non-favourable regulatory environment on commercial activities, which might lead to reasons (1) or (2) above.

(v) To grasp trading opportunities, that is, to position competitively their goods in the right conditions, at the right time and at the right place, buyers and sellers need access to transportation services which can guarantee, for any given trade, the lowest cost, the shortest transit time, desired frequencies and full reliability. Whereas such requirements are relatively easy to achieve in the context of national unimodal transport services, they are more difficult to satisfy in the context of international transport services using two or more transport modes. Some international transport operators are integrating the services provided by unimodal transport companies operating in different countries into efficient transport logistics chains. While transport logistics services in the past were organized "on behalf of the shipper", more and more transport operators are now offering MT contracts in their own name as reasonable and integrated alternatives for transportation of international trade. Commercial partners now have access to new transport tools which can be used to increase trading opportunities. At the same time, local carriers and transport organizers are facing new

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[1] See the *Report of the Trade and Development Board on its thirty eighth session, second part* (TD/B/1323 (Vol.II)), 1992, B. Terms of reference of the Standing Committees.

[2] *Report of the Standing Committee on Developing Services Sectors: Fostering Competitive Services Sectors in Developing Countries: Shipping on its first session* (TD/B/39(2)/5-TD/B/CN.4/13), 1992, annex I.

challenges to provide value-added services, taking advantage of new forms of co-operation, such as joint ventures.

(vi) This report comprises three chapters. The first chapter describes trading opportunities with the production-consumption cycle. It explains the importance of transport in a globalized production-consumption cycle and shows that the cost-effectiveness of supply, production and distribution processes depends, among other things, on efficient transport. The second chapter outlines three general transport-related areas that could lead to improved trading opportunities: a logistics approach to production and transport; better commercial practices to assign responsibility for door-to-door transport operations; and appropriate government policies and regulations to stimulate competitiveness in the provision of transport services. The last chapter presents multimodal transport as a value-added service offered to the trading community. The MT approach is more than just transport logistics; it requires the support of buyers and sellers, and it is based on a minimum legal environment. An MT approach to international transport is probably the only means to integrate the scattered improvement potentials discussed in chapter II into a powerful new transport system that will facilitate transactions for traders, open new transport services opportunities for local transport providers, and bring about a reorganization of the existing legal and institutional organization of the transport sector of developing countries. The chapter stresses that, although it is difficult to quantify the importance of MT, a coordinated approach towards the implementation of this concept can improve trading opportunities not only in the short term but also in the longer term. As a result of "thinking multimodal", commercial relationships between trading partners might change, and physical distribution organizations become more efficient. New business opportunities will result for local transport operators, provided an appropriate legal environment, based on liberalized policies, is established.

SUMMARY AND CONCLUSIONS

1. World markets are becoming increasingly "globalized". To a large extent, this reflects the fact that most, if not all, countries are adjusting to the strong trade liberalization pressures observable around the world. These pressures stem from several international trade agreements, including the General Agreement on Tariffs and Trade (GATT), the Canada-United States Free Trade Agreement (FTA) and now the North American Free Trade Agreement (NAFTA). There is also the development of other trading blocs like the European Union, the Association of South-East Asian Nations (ASEAN) and the growth of intra-Asia trade. These trade policy initiatives have a common objective: to open up new trading opportunities by facilitating international trade. These initiatives are also leading to the integration of the trading policies of the nations involved, and to the harmonization of their transport-related trading policies.

2. Tougher international competition and expansion of geographical markets have forced manufacturers to focus on integrated production and transport logistics strategies in order to reduce costs, and -at the same time- to obtain higher service standards. The need to control transport costs has become as important as the need to keep down other production costs. The emergence of reliable and competitive door-to-door multimodal transport services can contribute to, and foster, new trading opportunities.

3. Multimodal transport takes advantage of the recent developments in container-based transport logistics to offer better and more cost-effective services for shippers. For example, the efficient and rapid pace of land-side intermodal developments has led to new competitive sea-rail intermodal alternatives to traditional all-water operations, and the level of efficiency of both conventional and double-stack train services has enabled ocean carriers to achieve better utilization of their fleet.

4. Moreover, multimodal transport adds a new dimension to the international transport of goods. It offers a different, responsible, relationship between the supplier of services and the shipper requiring those services. The supplier of multimodal transport services is not a simple intermediary or a shipper's agent which organizes transport operations without accepting any form of responsibility for the goods; it is a carrier, an entity responsible to the shipper for the goods under its custody, from origin to destination.

5. Transport is no longer a major barrier to trade between developed countries. Indeed, North-North trade routes are served by a large number of continental and intercontinental transport operators, within a competitive commercial environment, based on commercially-oriented trade and transport regulations. However, transport remains an impediment for the international trade of many developing countries. North-South and South-South trade routes are served by relatively fewer transport operators; operational conditions are less favourable; risks are higher, etc. For these countries, this situation results in a failure to develop their international trade potential, in higher prices for imports, in lower foreign exchange earnings from exports, in restricted investment and employment and, thus, in limited economic growth. Any improvement made to present transport conditions is likely to have very significant effects on the economies of these countries and on the prosperity of their traders.

6. Trading opportunities can be improved by implementing transport logistics operations, by leaving the responsibility for the entire transport operation to only one trading partner, and by an appropriate legal environment which stimulates the provision of efficient local transport services taking advantage of joint ventures. By managing these potential improvements under a multimodal transport approach, synergies can be created resulting in unexpected trading opportunities for both local traders and transport services providers to the benefit of their national economy.

7. Such a coherent multimodal transport approach can bring short-term benefits to local traders and transport operators, as well as longer-term consistent structural changes in the transport of a country's international trade. A better awareness on the part of all concerned is probably a key element for the development of such an approach. Appropriate technical assistance in creating this awareness and implementing the necessary changes might be another.

Chapter I

TRADE OPPORTUNITIES AND PRODUCTION-CONSUMPTION CYCLE

A. ELEMENTS OF TRADING OPPORTUNITIES

8. A trading opportunity between a seller and a buyer emerges from having the right product, at the right place, at the right time and at a competitive price. Depending on whether the product is a consumer good or a producer good[3], the seller might be the producer (a manufacturer, a farmer, a mining company, etc.) or an intermediary (another manufacturer, a trader, an exporter, etc.), and the buyer the final consumer or another intermediary (a manufacturer, a trader, an importer, etc.).

9. To create a trading opportunity, four basic functions must be adequately performed: the provision of, or access to, the goods (through manufacturing or trading); the storage of the goods; the transport of the goods; and their marketing. Manufacturing creates and trading locates goods which are planned for customers' satisfaction (right product); storage holds these goods until the time when they will be used (right time); transportation brings them to where they will be used (right place); and marketing transfers the ownership of the goods to the person to whom they are useful (competitive price).

10. Between production and consumption, a given product passes through various trade transactions along the different stages of its production and commercial organization. Each stage increases the value of the product by aggregating to it further manufacturing/transformation activities, or by moving it (transport) and keeping it (storage) closer to the next customer in the production and commercial chain. Each intermediate sales/purchase transaction becomes a trading opportunity for the commercial parties involved (seller and buyer at this particular stage), as well as for any third-party services provider involved in the intermediate transaction. Box 1 highlights the transport-related stages that comprise a typical production-consumption cycle.

11. Relatively few goods are made at the direct order of the consumer[4] or for the producer's own consumption, as most goods are produced in the expectation that they will be sold in domestic and international markets to other manufacturers, traders or final consumers. This expectation may be tempered by the production cost of the goods and by possible natural and man-made barriers.

12. Any given production process depends on factors such as labour, land, capital, management and technology, which can usually be combined in different ways according to the availability of each factor and the local conditions at the place of production. As a result, the same product can hardly have the same price in two different locations, be it regions

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[3] *Consumer goods* are goods used by consumers to satisfy their wants; *Producer goods* are goods used in the process of producing other goods.

[4] Although, in some industrial sectors (i.e., the automotive industry), first there might be an order for and sale of a product and, subsequently, its production.

Box 1

Producer	*(a)*	*Sells ex-works (EXW)*
Exporter	*(i)*	*Buys EXW from the producer;*
	(b)	*pays inland transport to the port of loading;*
	(c)	*pays loading charges onto the ship;*
	(d)	*pays (possibly) local cargo insurance premium; and*
	(e)	*sells free-on-board (f.o.b.) at the loading port.*
Shipper	*(f)*	*Buys f.o.b. at the loading port;*
	(g)	*pays ocean freight;*
	(h)	*pays all charges for port use;*
	(i)	*pays marine cargo insurance premium; and*
	(j)	*sells cost-insurance-freight (c.i.f.) at the unloading port.*
Importer	*(i)*	*Buys c.i.f. at the unloading port;*
	(k)	*pays cargo handling charges from quay to means of delivery;*
	(l)	*pays storage charges;*
	(m)	*pays for the charges/duties/taxes on cargo;*
	(n)	*pays inland transport and related insurance premium to place of delivery; and*
	(o)	*sells the cargo at the place of delivery.*
Consumer	*(p)*	*Buys the goods at the place of delivery;*
	(q)	*pays inland transport and (possibly) related insurance premium between the place of delivery and the place where the commodity is to be consumed.*

within the same country or countries.

13. Natural barriers refer to all the non-policy reasons why the same goods can sell for different prices in different locations. They fall primarily into two categories: transport costs, and a variety of factors that result from a lack of information (sometimes called "rational ignorance"[5]) on the part of buyers and sellers. Transportation costs include all direct and indirect costs related to transport, storage and handling operations; and the remaining factors reflect, among other things, the impact of communications costs and the fact that different countries have different customs and regulations.

14. Man-made barriers encompass all policies that create, or add to, price differences. They include policies such as import restrictions, special incentives or restrictions on exports, foreign exchange policies, departures from national treatment, etc.; they also include policies which act to increase the costs imposed by natural barriers, such as regulations in the transportation and communications areas that keep prices of these services artificially high.

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[5] Rational ignorance occurs when a buyer or seller remains uninformed of the full range of market opportunities because the expected cost of becoming informed exceeds the expected benefit.

15. Production costs and natural or man-made barriers affect domestic and international trade differently. Indeed, international trade has two important features that do not apply to domestic trade: (1) it involves the use of foreign standards of value and media of exchange for either or both trading parties; (2) it is subject to different laws, customs, cultures and languages. Frictions, costs, and uncertainties associated with transactions across national frontiers, together with differences in customs and regulations, to some degree act to inhibit trade flows.

B. TRANSPORT IN THE PRODUCTION-CONSUMPTION CYCLE

16. In the search for a compromise between production costs and trade barriers, transport and distribution-related activities, which were originally considered as subordinated to production, are now an integrated part of a process that starts with the collection of raw materials and ends with the distribution of the final product to the final consumer. To keep a tight control of all expenses and to preserve or improve their competitiveness, manufacturing industries searched for economies of scale in production processes and took advantage of the global potential of the division of labour. This resulted in the spatial concentration of larger but fewer production units supplying the same or even an increased geographical market. Production is now fragmented into highly specialized but complementary units, sometimes quite far away from each other. Multiple-site manufacturing and assembly, working on reduced inventories and spanning countries and continents, is a common practice. As a consequence, shipments are becoming smaller but more frequent, and require efficient, speedy and flexible distribution systems.

17. The competitiveness of internationally traded products is greatly influenced by various factors which build up the overall transportation cost. The main ones are: (1) costs associated with transport operations; (2) overall transit time required for moving goods from origin to destination; (3) time reliability in delivering goods; (4) safety of goods; and (5) uncertainties about overall transport costs.

18. The cost associated with the physical transfer of the goods is an essential piece of information in the negotiation of an international trade transaction. To maintain the competitiveness of his products, the seller must make sure that this cost is as low as possible. However, on any particular trade route, this cost is made up of a number of cost elements corresponding to the services provided along each specific link. These elements cannot always be clearly quantified beforehand.[6]

19. Some cost elements (direct costs) are directly related to services provided. In general, they are based on published tariffs which reflect the local market conditions, the quality of the service, the management capacity of the service provider, etc.[7] These considerations

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[6] For example, because of unexpected delay in the provision of a railway service, goods might have to be stored at an interface point during a longer period than originally planned. Additional storage charges will be incurred which had not been foreseen in the transport cost as originally estimated.

[7] As an illustration of this point, an ECLAC study ("The restructuring of public-sector enterprises", Cuadernos de la CEPAL, No.68, 1992) mentions that the road carriage industry in the ECLAC region is composed of private companies with a limited number of heavy trucks and many owner-operators whose equipment can generally transport no more than 8 to 10 tons. Marine containers are generally loaded with 11-24 tons, so the majority of such units must be emptied at ports before goods can be transported to their ultimate

depend on the state of the local infrastructure and equipment, and on the local infrastructure/equipment maintenance policy to provide reasonable transport services. They also depend on the local capacity to plan human resource development in order to assist managers in making the best use of existing infrastructure and equipment.

20. Other cost elements (indirect costs) are a consequence of the services provided. They build up as financial costs resulting from poor operations (low speed, unexpected delays, etc.), as additional costs (e.g. increased insurance premiums), or as "consequential costs" (e.g. sales opportunities lost because goods are not readily available). They reflect the efficiency of the services, the level of risks involved, and the capacity of services providers to cope with administrative and operational problems.

21. Transit time is an important element as goods in transit cost money (inventory costs). For example, a container carrying 800 car doors weighing 15 kg each, enough to equip 200 cars, might have a value of approximately US$ 60,000. The daily inventory cost of the 800 doors (based on a 10 per cent interest rate) can be estimated at US$ 16. Any reduction in transit time would therefore reduce the overall cost of the delivered goods. Transit time can be improved by increasing transport speed while cargo is moving on any particular transport mode, and/or by reducing idle time while cargo is waiting at some interface point for its next movement. The lack of proper intermodal coordination of transport operations or the excessive burden of administrative/documentary requirements might neutralize any effort or investment in increasing commercial speed.

22. To reduce the financial cost of their inventories, producers favour arrangements that supply the required input goods "just-in-time" (JIT), that is, within a short time span before the anticipated use in production or sale. Under these conditions, time reliability is very important. In the previous example, if the container does not arrive as scheduled, the 200 cars (at a price of, say, US$ 10,000 each) cannot be assembled and delivered on time. Therefore, the container has a "value" of 200 times US$ 10,000 (US$ 2 million), and the daily loss on such a stranded container can be valued at US$ 550. But, more importantly, production might have to be stopped at very high costs: idle work forces, unused equipment and facilities, etc. An industry operating under tightly scheduled operations (JIT production chains) cannot afford such delays on delivery. An exhaustive study on price competitiveness in international trade[8] found that buyers are often willing to purchase more costly goods if they have shorter, highly reliable delivery times.

23. Safety of goods is equally important. Any loss or damage, because of theft, mishandling, poor quality packaging or physical damage caused by accident will result in the non-availability of the goods at the expected time and place, and in the expected conditions. The financial consequences of such non-availability, in addition to the cost of the loss or damage, are similar to the time reliability consequences mentioned above.

24. Finally, uncertainty in cost quantifying (direct as well as indirect) is another critical issue faced by traders and might disadvantage an exporter. For example, on a c.i.f. sale transaction, the additional cost resulting from any undue storage at the port of loading might absorb much of the profit margin expected from the transaction, since the seller has to cover

destinations.

8 Kravis, Irving and Robert Lipsey, *Price Competitiveness in World Trade* (Columbia University Press: New York, 1971), pp. 158-165.

all transport costs up to the port of unloading.

25. The above-mentioned considerations indicate that trading opportunities can benefit from better organized transport services. To take advantage of such transport services, sellers and buyers must adapt their commercial practices, and governments must provide the transport services providers with an institutional, regulatory, and operational environment which can stimulate the provision of commercially viable services. These aspects are discussed in the following chapter.

Chapter II

MEANS FOR THE IMPROVEMENT OF TRADING OPPORTUNITIES

26. The Secretary-General of the Organisation for Economic Co-operation and Development (OECD) said: "*The regular decline in transport costs, the free and instantaneous circulation of capital and information, the immediate diffusion of technology have allowed countries with low wage levels to implement the most modern manufacturing technologies and to compete efficiently with the industrial countries' production.*"[9] This situation is the result of drastic changes in production and transport systems, in commercial practices, and in governmental policies.

A. PRODUCTION AND TRANSPORT LOGISTICS

27. To cope with the new production pattern based on globalization and on the integration of transport in the production-consumption cycle, manufacturing industries started introducing new manufacturing and inventory techniques under the all-embracing term of *logistics*.[10] This system's approach to the individual activities (supply, production and distribution) in the manufacturing process eliminates the separation between such activities and links them in new and more powerful combinations to achieve increased levels of efficiency, enhance quality and reduce costs of finished goods.

28. Logistics improves productivity by: (1) reducing the size of inventories which, where the production system is not very flexible, absorb [cushion] discrepancies between supply and demand; and (2) matching output to demand. This implies strict control of the supply, output and distribution of goods, which have to be planned for and geared to real demand rather than forecast demand. This approach has become feasible as a result of progress in: (1) micro-electronics, for gathering basic data; (2) robotics and automation, for flexible production; (3) communication networks and information processing techniques, for rationalizing the system; and (4) transportation, for bridging the spatial gap between production and consumption.

29. Logistics has led to JIT techniques, seamless trading and centralized warehousing. It has alleviated some of the pressure on working capital tied up in inventories, office and storage space, and thereby increased the volume of goods and services in the supply chain. The capital freed by reducing inventories and increasing production capacity utilization can then be used for other investments. Logistics results in higher productivity in both production and transportation and thus cuts the total cost of supply, production and distribution.

30. Transport logistics, that is, the integration of transport with other services (including

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[9] M. Jean Claude Paye, in an article published in "Le Monde", 24 February 1993.

[10] "Logistics" is defined by the American Council of Logistics Management as: "*the process of planning, implementing and controlling the efficient, cost-effective flow and storage of raw materials, in-process inventory, finished goods, and related information from point of origin to point of consumption for the purpose of conforming to customers' requirements.*"

stock management, packing and labelling of products, insurance and banking operations related to the movement of goods, border formalities in the case of international transport, etc.) results in improved levels of service to customers. Such improvements lead to better quality of delivered products and may be used to increase market shares (or to justify price increases), and thereby generate additional revenues.

31. Transport logistics depends on high standard transport services which can maintain control over worldwide flows of components and products, whilst simultaneously allowing enough flexibility to react to rapid shifts in market demand. Factors such as flexibility, speed and reliability are of primary importance:

a. Flexibility because transport logistics must be adaptable to variations in consumer demand and to unforeseen circumstances;

b. Speed because the speed at which transport operations are carried out can reduce the time during which products -and therefore capital- are tied up; and

c. Reliability because it reduces the risks of a breakdown in the supply or distribution of goods, and thereby lessens the need for safety/buffer stocks.

32. Transport logistics also depends on transport services which can result in lower overall costs of delivered products. The combination of three technically-related types of costs: transport, handling/storage and administration, under the "logistics costs" heading defines the basket out of which alternative solutions have to be selected. The area within which the optimum solution is to be found is therefore considerably extended and allows the decision-maker to choose the optimum logistics solution, which is more important for the firm than the transport optimum. In practical terms, this means that alternatives can now be worked out which, in some cases, could also mean higher transport costs for the firm, these higher transport costs being more than offset by reduced handling/storage and administration costs. Therefore, the inefficiency or lower productivity of one particular mode or interface may be acceptable if it results in proportionately greater gains for the entire system.[11]

33. There are many options available to carriers to improve their transport operations, among which can be mentioned economies of scale and network size, and economies of traffic density.

34. Economies of scale and network size are obtained by producing larger quantities of services with more economical methods. These economies offer the opportunity to expand services on existing networks at a lower cost than expanding services to new destinations, as well as to integrate vertically complementary services. Such economies could lead, for example, to the use of "hub and spoke" systems in air and ocean transportation, to the

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[11] For example, in the transfer of containers between vessels and waiting railway wagons, it may be found that a temporary storage area is required between vessels and wagons, involving double handling of containers, in order to avoid excessive investment in facilities and container handling equipment or drayage costs to other rail terminals. Further discussion on transport and distribution costs can be found in the UNCTAD report, "Information material for shippers to make the most efficient use of multimodal transport" (TD/B/C.4/330), annex I.

development of inland clearance depots (ICD), to the organization of landbridge operations,[12] or to the combination of sea-and-air services.[13]

35. Economies of traffic density are obtained by increasing the use of a system in order to spread system costs among more users. Such economies are usually combined with economies of scale and network size. Economies of traffic density would make greater use of the size of available means of transport (container vessels, wagons, trucks, etc.). Typical examples are the use of large containerships or the development of double-stack train operations.[14] Such economies result in greater use of available infrastructure capacity and higher rentability of capital utilization, and lead to various forms of horizontal integration of services (co-loading agreements, consortia, pools, etc.).

36. With the availability of efficient transport operators, manufacturing industries have set up their production logistics systems according to their own needs, taking into account the characteristics of their products, the places where supplies are bought and goods marketed, and their customer requirements. Accordingly, they demand tailor-made transport logistics services from creative and innovative transport partners who will share risks and rewards, and offer total cooperation in order to obtain the objectives of safe product transport, economy, forward planning, incorporation of new technologies and facilities, and expanded use of communication systems.[15]

37. Such cooperation in the provision of comprehensive services that cross conventional lines of transportation, warehousing and inventory management can result in cost reductions for commercial transactions between manufacturing industries and transport logistics providers, in terms of:

a. A better understanding of each party's needs and limitations, thereby reducing the level of uncertainties in the transaction or the probability of non-performance of the contract: quality of the goods, packaging issues, reliability of transport and ancilliary services, stability of transport rates, etc.;

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12 The Canadian west coast ports' intermodal landbridge can represent a reduction in transit time of as much as 50 per cent over the all-water alternative for cargo moving from Japan to North America's east coast markets (from the article "Intermodal challenges facing Canada", in *World Wide Shipping*, Blauvenlt, N.Y., Sept. 1993).

13 These services offer faster transit times and lower costs than all-air options. For example, the rates from Northern Europe to Australasia via Singapore are 30 to 40 per cent below airfreight rates on a 25-day transit. The sea-only route implies about 40 days in transit (taken from Hans Jurgen Peters, *Seatrade, logistics and transport, Policy and Research Series* No.6 (The World Bank, Washington, USA, 1990)).

14 It is estimated that the stacking of containers in rail services can reduce line haul cost by 60 per cent, a commercial attribute of the service to contracting transport operators (Robert Delaney, *Journal of Commerce*, New York, 21 June 1988).

15 As an example, the construction of the Sony Central Distribution Centre (CDC) -an investment of more than US$ 200 million- is worth mentioning: home electric and electronic appliances produced by five plants are sent to the Singapore CDC where they are stored, packaged and consolidated into containers for shipment by sea. The CDC serves as Sony's Asian export distribution centre. It reapes substantial savings in investment: if each factory had a warehouse, the total monthly expenses would amount to about US$ 12.7 million. By having a CDC in Singapore, the cost incurred is only about US$ 8.6 million, a substantial saving of US$ 4.1 million per month. Other benefits include a 50 per cent reduction in lead time and savings in manpower and transportation costs. (from Port of Singapore Authority *News*, vol.5, No.5, May 1988).

b. Preferential treatment according to the frequency of transactions. Recurring transactions allow the establishment of particular treatments that cannot be set up for one-time or irregular operations; and

c. Long-term commitments, which offer the opportunity to take into account the idiosyncracy of transactions requiring specific investment, for example special handling facilities and equipment, local electronic data interchange (EDI) standard, etc.

38. This cooperation between manufacturers and services providers will have short-term effects on the cost of transport, insurance premiums, banking charges, etc. Longer-term effects can also be expected, since both commercial parties in a market characterized by uncertainties, frequent operations and the need for at least some investment in transaction-specific ("idiosyncratic") equipment or facilities, will tend to form long-term contractual alliances.

39. Most developed countries have paid particular attention to the development of efficient transport logistics services. In the United States of America, for example, there has been a regular effort to reduce logistics costs.[16] Over the period 1982-1992, the increase in total logistics costs from US$ 515 billion to US$ 647 billion has been slower than the increase in gross domestic product from US$ 3.15 trillion to US$ 5.95 trillion. This has resulted in a substantial reduction (some 30 per cent) of the participation of logistics costs in GDP, from 16.35 per cent to 10.87 per cent. As a comparison, in 1992, the participation of logistics costs in GDP was estimated at 10.1 per cent for Japan, 12.2 per cent for Europe and 13 per cent for the new industrialized countries around the Pacific Rim.

40. Transport logistics services are important not only because they boost their users' profitability but also because they are critical to their global competitiveness.[17] However, to take advantage of transport logistics services, manufacturers, traders and, in general, transport users, must adapt their customs of particular trades and commercial practices which, too often, are among the natural barriers that affect trade opportunities.

B. CHANGES IN COMMERCIAL PRACTICES

41. There is no universally applicable law governing international sales/purchase contracts. The obligation of the importer or exporter may be governed by the domestic law of the buyer's or seller's country, or by legal standards derived from international conventions such as the United Nations Convention on Contracts for the International Sale of Goods,[18] and the INCOTERMS of the International Chamber of Commerce (ICC)[19] or by prevailing commercial

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16 *Survey of Current Business; U.S. Statistical Abstract*; U.S. Department of Commerce, from an article by Robert Delaney, Cass Logistics, Inc., published in *Distribution* (Radnor, Pa., July 1993), p.6.

17 *"Almost 50 percent of our real economic growth in the last half of the 1980's and nearly all our growth in our current recovery is attributable to increased exports"*, from "The magic of low-cost logistics", editorial by Thomas A. Foster, ibid., p.4.

18 United Nations Convention on Contracts for the International Sale of Goods (the Vienna Convention), was signed in Vienna, on 11 April 1980, and entered into force on 1 January 1988. As of early 1994, 38 contracting States had ratified the Convention.

19 *INCOTERMS 1990*, ICC publication No.460 (ICC, Paris, 1990).

practices. The parties are free to choose the law applicable, so far as it relates to the private law aspect (law of contract, company law, laws of agency, etc.) of their agreement. However, they do not have any choice but to follow the regulatory provisions of the laws of the country of the buyer or seller regarding, for example, the exchange control regulations, licensing requirements or market/commodity restrictions for export/import.

42. When negotiating a sales/purchase contract, the buyer and the seller have to agree, among other things, on how to share the responsibilities for arranging for the transfer of the goods, on whether the buyer or the seller will cover the specific costs associated with this movement, and on the location of the point where risk of damage or loss is transferred from the seller to the buyer. Reference to a specific INCOTERM in a sales/purchase contract is a shorthand way of affirming the respective responsibilities of the two parties. It serves two purposes: (1) it obviates the need for listing all the obligations of the two parties to the contract and the incidence of associated costs; and (2) it removes the possibility that the parties to the contract may interpret the terms differently.

43. In most countries, international trade is conducted on the basis of traditional commercial practices: exports are made on a ex-works or f.o.b. basis and imports on a c.i.f. basis. Exporting is too often seen as selling surplus farm or factory production overseas. Many producers lack awareness and orientation in becoming exporters. Those who export tend to prefer selling their products on departure instead of taking an aggressive marketing position by selling on delivery terms, particularly when delivery takes place in a developing country.

44. The reasons behind this situation are numerous. The main one is to avoid taking risks (loss, damage, delays, etc.) during the physical transfer of the goods; other reasons include local administrative restrictions such as foreign exchange regulations to control the use of hard currencies. In a -perhaps slightly outdated- analysis of the terms of sales from samples of export invoices taken in 1984 and 1985,[20] H.M. Customs and Excise of the United Kingdom observed that: (1) in trade markets between developed countries, United Kingdom exporters were selling on departure (using ex-works or f.o.b. terms in some 60 per cent of the cases); (2) this behaviour was even more pronounced in trade with the former centrally planned economy countries (in which ex-works and f.o.b. terms represented some 92 per cent of the cases); and (3) in trade with Middle East countries and other developing countries, they were selling on arrival at the port of unloading (using c.i.f. terms in 48 per cent of the cases). Recently, a representative of the American International Freight Association (AIFA) mentioned that: "*by some estimates, almost 70-80 per cent of U.S. exports move either "ex-works" or FOB port of export, because most U.S. shippers do not want to become involved in the complex process of arranging for international transportation movements*".[21]

45. Such commercial practices and, sometimes, customs of particular trades, prevent the use of door-to-door transport services under the responsibility of a single transport operator. Indeed, by using f.o.b. or c.i.f. commercial terms, neither the seller nor the buyer controls the entire transport chain from the seller's premises to those of the buyer. In other words, neither of the two commercial partners is entitled to contract the entire transport operation. The responsibility for the physical transfer of the goods is necessarily shared between the seller

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20 H.M. Customs & Excise, *Export Value Verification Surveys* (London: United Kingdom, 1985).

21 Richard D. Gluck, Counsel, American International Freight Association, in a speech at the Shipping Symposium on International Multimodal Transport, organized by the ICC at Barcelona, Spain, April 1992.

and the buyer. The seller is responsible up to a critical point: the time and place where goods are loaded on to a vessel at the port of origin (in the case of a f.o.b. sale) or the time and place where they are unloaded at the port of destination (c.i.f. sale); from that critical point up to the final destination, the buyer takes over the responsibility for the goods.

46. Some well-organized international transport operators might give the impression that they offer real door-to-door transport services, even when the trade transactions are based on f.o.b. or c.i.f. terms. The fact is that such international transport operators are assembling the entire door-to-door transport chain in two consecutive sets of transport operations. In the first set (for example, in the case of a c.i.f. sale), goods are transported on behalf of the seller by one transport operator (e.g. a multimodal transport operator) or more than one (e.g. successive modal transport operators) from the seller's premises up to the port of unloading. The second set then includes the transport operations performed by a different operator, established in the country of destination and responsible solely to the buyer (because of the c.i.f. sale), for on-going carriage up to the buyer's premises. The "umbrella" transport organization is made of local transport companies working separately at each end of the trade but collaborating under some form of joint venture agreement. Traders may think their goods are handled by a single operator (the international transport operator) when, in fact, they are taken care of by two (or more) different carriers whose respective responsibility is defined in two (or more) different legal systems.

47. Although such a situation does not preclude transport efficiency on the part of the carriers involved, it could lead to some confusion, particularly if damage occurs in a developing country where carriers may be operating under weaker liability regimes than those applicable in the country of the partner at the other end of the trade.

48. It is important therefore for the seller and the buyer to reach an agreement on using an INCOTERM which can leave one of them in a position to fully organize and be responsible for the transfer of the trade goods from the seller's premises to those of the buyer. Terms such as: ex-works (EXW), free-carrier (FCA), carriage-paid-to (CPT), carriage-insurance-paid-to (CIP), delivered-at-frontier (DAF), delivered-duty-unpaid (DDU) or delivered-duty-paid (DDP) should therefore be used.

49. The use of one of these terms rather than another depends on the capacity of one or the other trading partner to find in his country experienced international transport operators which can assist him in fulfilling the commercial implication of his choice. Under normal conditions of trade between countries with well-organized container ports and peaceful labour conditions, the seller may be prepared to assume the risk of transport and to choose an INCOTERM in which his responsibility extends to the arrival of the goods at destination (e.g. DAF, DDU or DDP). A seller who prefers to see the buyer assuming the risk of the transport operation may want to choose an INCOTERM in which his responsibility terminates when he passes over the goods to the first transport operator (e.g. FCA, CPT, CIP), although he might still be obliged to pay for all transport expenses (as he is in the case of CIP and CPT).

C. GOVERNMENT POLICIES

50. Besides the fact that better transport options could be selected if appropriate commercial practices were used, reductions of natural barriers to trade depend first of all on the availability of, and access to, transport services based on technological advances in

transportation and communications. However, the availability of such services and access to them can be facilitated or frustrated by government policies.

51. In most countries, government policies affect the provision and maintenance of basic national infrastructure and equipment in the transport and communications sector. They also affect the treatment of imports and exports, and the provision and conditions governing transport and communications services.

52. The provision and maintenance of adequate transport infrastructure and equipment can lower transportation costs. Indeed, under such conditions, vehicles operate more efficiently and tend to consume less fuel and lubricants. In addition, vehicles can be expected to have a longer life span, reducing the need for frequent replacement and, consequently, the need for foreign currency to buy new vehicles. These policies can also create alternative transport routes with shorter transit times and safer conditions. Transport operations can be handled more safely and efficiently, and substantial reductions in risks (loss and damage) on cargo and in insurance premiums can be expected.

53. Similarly, policies on the provision and maintenance of communications infrastructure and equipment should not be belittled as they can also be beneficial to traders. This was demonstrated in a study sponsored by the International Telecommunication Union (ITU).[22] This study, carried out in Kenya, points out, for example, that a medium-sized company engaged in importing and stocking a wide range of industrial products could save as much as Kenyan Shs 2.4 million (or around 5 per cent of its annual revenues) from improved telecommunications. An international freight forwarding company with headquarters in Nairobi and operations in Mombasa and Kisumu, could save some Kenyan Shs 5.5 million (around 6 per cent of its annual revenues) from the same improvements.

54. Policies on imports and exports, implemented by procedure-oriented Customs administrations might create barriers to trade. For example, sealed containers must be able to move outside port areas and even to cross frontiers when the port-state is used for transit purposes. However, Customs are not the only possible administrative blockage which may be encountered, although they are the most important one. Others which may lie entirely within the private sector in developed countries, for example, financial procedures, are likely in developing countries to involve the Government, either because the banks are state owned or because of exchange control regulations that must be observed. Such regulations, or procedures required to satisfy the regulations, can hinder a viable and valuable enterprise unless prior exemption can be obtained. In the case of many administrative bottlenecks, the problem is not costs or the fact that evasion of the law is being attempted. The problem is the time wasted on procedures which cannot be started before the goods are available and which can extend a programmed stop of twenty-four hours into an unpredictable number of days. To remove such constraints, governments might wish to consider shifting the focus of their administrations from narrow-minded compliance and verification of trade documentation and procedural requirements to a broader trade management orientation.

55. Government policies are particularly important in the provision and conditions of transport and communications services, because such policies specify the respective role of

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22 *The Impact of Telecommunications on the Performance of a Sample of Business Enterprises in Kenya*, a research report for the International Telecommunication Union (ITU) by Communications Studies and Planning International (Geneva, January 1982).

the public and private sectors. A public sector activity is motivated by public interest, a private enterprise by the expectation of profits. Their mutually dependent roles can be geared towards the provision of transport services that are innovative, productive and cost-effective, in the context of the globalization of trade and the adoption of export-oriented macroeconomic policies.

56. Government regulations for public utilities reflect public policy objectives: economic regulations to protect consumer welfare in terms of prices, security and quality of service; technical regulations for insuring vehicle standards, for instance; environmental regulations, including pollution control; regulations on social grounds, e.g. to ensure essential services for certain social groups, etc. These regulations might cover the privatization or the commercialization of transport-related public utilities such as ports, inland clearance depots and other basic transport infrastructure.

57. Privatization eliminates government participation in enterprises' capital and management, whereas commercialization only leaves the management under private interests. Both privatization and commercialization open businesses and organizations to strong market forces. While ownership often matters, competition matters even more for the achievement of the efficiency gains which privatization and commercialization are meant to bring about. Two examples illustrate this point. Privatization of the container terminal at the port of Kelang (Malaysia) in March 1986 led to a lowering of costs and an increase in productivity.[23] The Government of Chile created competition in cargo-handling and storage operations by authorizing the private sector to establish stevedoring companies.[24] By doing so, cargo-handling productivity at the port of Valparaiso increased from 2,060 boxes of fruit per hour in 1978-1979 to 6,500 in 1985-1986. Vessel port-stay times decreased from 129 to 40 hours, and per box costs from US$ 0.54 to US$ 0.26.

58. Liberalization and deregulation policies are designed to open a market to competitive domestic and, possibly, foreign forces by reducing government intervention in a given economic activity. Excessive government intervention in transport services either through regulation of private operators (e.g. establishment of tariffs) or manipulation of public enterprises (e.g. provision of subsidies) limits the responsiveness of supply to the highly dynamic and varied demand for transport. Liberalization and deregulation policies can stimulate competition, enhance the role of private enterprises, and result in more efficient and profitable behaviour of the market forces in the transport sector.

59. The opening of the market for international transport services could lead small developing country transport companies to seek support and cooperation, in the form of joint ventures, management contracts and the sale of shares, with established international transport operators from developed countries. This would reduce operational and technical inefficiencies, improve management performance and increase transfer of know-how and technology, taking advantage of any applicable form of technological development, including EDI.

60. Where they do not exist yet, government regulations are necessary to define the

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23 "*Malaysia's Port Kelang, Kuanton Register Strong Cargo Growth*", article by P.T. Bangsberg, published in the *Journal of Commerce*, 1 February 1991.

24 Reported in "The restructuring of public-sector enterprises: the case of Latin American and Caribbean ports", *Cuadernos de la CEPAL*, No.68, ECLAC, Santiago de Chile, 1992, p.88.

institutional and legal environment of international transport services. In most countries, there is no institution that supervises the overall issues of international transport. The approach is generally fragmented on a modal basis, with limited contributions from the commercial private partners (traders and services providers, including transport operators), which have to struggle with inefficiency of the existing transport system and administrative procedures. The case of freight forwarding companies needs to be mentioned in this general context. These companies are often only commercial entities and are not considered legally as transport companies. They manage international transport operations but, in many countries, are not entitled to issue transport documents. In such situations, governments might regulate their activities (by a licensing system, for example). This would provide an orderly system in which transport users were protected from informal or marginal operators, and freight forwarders acting as carriers were fully recognized by banks, insurance companies and other services providers.

D. A MEASURE OF IMPROVEMENT

61. By combining the means discussed in this chapter, overall transport costs can be reduced and trading opportunities improved. The magazine *Distribution* reports that, in the United States, a one per cent reduction in the nation's transport logistics costs could be achieved by cutting US$ 55 billion from transportation and inventory costs.[25] The first US$ 25 billion could come from savings resulting from the enactment of several pieces of legislation, e.g. to rebuild highways, complete the deregulation of interstate carriers, remove state regulation of trucking and reduce the burden imposed by states on trucking through bureaucratic registration and taxation. The other US$ 30 billion would come from improved companies' logistics operations, reducing inventories (and thereby the carrying costs) by 15 per cent. The report mentioned that reducing inventories by 15 per cent appeared to be feasible for any company, especially those that had yet to take a critical look at their distribution networks. With advanced computer systems, even the most sophisticated companies can find ways to replace inventories with information.

62. This study demonstrated that a potential for improvements exists under the present conditions. Transport logistics costs can be reduced for the benefit of traders, services providers and national economies. These improvements involve positive actions and measures from the three main players in the international trade arena of a country, namely, the government authorities (as "rule-makers"), the transport users (buyers and sellers, importers and exporters) and the services providers (transport operators, banking institutions, insurance companies, etc.). The following chapter will describe how a multimodal transport approach can bring together the concerns of these three players, and will outline some of the most relevant benefits that can result from it.

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25 "*The $55 billion logistics challenge*", article by Thomas A. Foster making reference to the report by Robert Delaney, "State of business logistics", Cass Logistics, 1990, published in *Distribution* (Radnor, Pa., July 1991), p.4.

Chapter III

IMPACT OF MULTIMODAL TRANSPORT ON TRADING OPPORTUNITIES

A. THE CHARACTERISTICS OF MULTIMODAL TRANSPORT

63. Since the introduction of containerization and the later development of EDI, international trade has been increasingly demanding efficient commercial transactions. To take advantage of the potential offered by the new technologies, the international trading community updated its uniform commercial practices regarding trading terms,[26] letters of credit,[27] and multimodal transport documents.[28] Within the available transport conditions and legal environment, transport operators have developed transport systems to fulfil customers' requirements, offering competitive services and making trade more efficient. Transport operators have started to put into practice the concept of multimodal transport.

64. Taking as a reference the definition of multimodal transport as contained in the MT Convention,[29] multimodal transport is characterized by the fact that it is:

a. A **service activity**, which refers to the carriage of goods under a transport contract between the multimodal transport operator (the MTO) and its client;
b. A **commercial activity**, which should be performed by qualified international transport operators and which therefore requires a legal framework to ensure minimum standards in the provision of services and some protection of the interests of the various commercial parties involved; and
c. An **international activity** by which goods pass from one country to another and use various transportation modes, involving different fiscal regimes and responsibility regimes which must be harmonized.

65. Multimodal transport is a service innovation by which the MTO assumes a contractual responsibility to move goods from a point of origin (in one country) to a destination (in another country) under a transport contract, for an agreed price with -possibly- a time-limit for the delivery. This service innovation ensures that the goods will move to their destination as fast and securely as possible, at a cost known in advance.

66. Indeed, for its own sake, the MTO must organize a transport chain over which it has full control. It selects the most suitable transport modes and interface combinations whose sum of costs, added to its own management charges, does not exceed the agreed price of the

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[26] *INCOTERMS 1990*, ICC publication No 460 (ICC, Paris, 1990)

[27] *Uniform Customs and Practice for Documentary Credits*, ICC publication No 500 (ICC, Paris, 1993)

[28] UNCTAD/ICC *Rules for Multimodal Transport Documents*, ICC publication No 481 (ICC, Paris, 1992)

[29] According to article 2 of the United Nations Convention on International Multimodal Transport of Goods, multimodal transport is defined as "*the carriage of goods by at least two different modes of transport on the basis of a multimodal transport contract from a place in one country at which the goods are taken in charge by the multimodal transport operator to a place designated for delivery situated in a different country*".

service. The MTO's competitiveness in offering services depends on how it can take advantage of all possible transport management techniques available to make better use of the existing capacity and operating conditions of each specific transport link of the chain. The MTO is providing *transport logistics* services.

67. More importantly, the MTO is responsible for the goods under its custody, from origin to destination, a situation which is not necessarily the case under transport logistics services. Being responsible for the safe, on-time delivery of the goods, the MTO must make sure that the goods are moving properly towards their final destination. Stranded goods result in higher risks (in terms of loss or damage) to the goods and possible breaches of an on-time delivery commitment, for which the MTO might have to respond. To reduce its own risks and transport logistics costs, the MTO's primary concern is to increase the overall cargo speed during transit between origin and destination.

68. Multimodal transport is also a commercial activity carried out by professional transport operators such as vessel operators and non-vessel operators (including modal operators and freight forwarders). They are part of the transport sector of a country and, as such, must be fully recognized as qualified to manage international transport operations. Without such formal recognition, they might not be authorized to issue multimodal transport documents accepted by local and international banks, and might not be entitled to proper liability insurance coverage. This is the case in a number of countries where international transport operations can only be handled by ocean and air carriers. In those countries, land-based transport operators can only issue modal transport documents, and freight forwarders have no legal existence as carriers and therefore cannot issue any transport document.

69. Finally, international multimodal transport is also an activity that crosses national frontiers. Not only must the goods comply with specific import and export regulations at each end of the trade, but the MTO must also be recognized as a carrier in its own country as well as in the trading partner's country. This highlights the importance of developing internationally harmonized governmental regulations and commercial practices regarding, *inter alia*, the profession of "multimodal transport operator".

70. Multimodal transport has an impact on trading opportunities. The main thrust of this impact is directed towards trading opportunities between sellers and buyers to whom it provide *responsible* transport logistics services. But multimodal transport also generates new trading opportunities for transport operators, particularly from developing countries. With the proper institutional and legal framework, and with appropriate awareness of trade- and transport-related administration and potential users, local transport companies can enter the worldwide market of international transport.

71. The development of multimodal transport in a country implies consideration of the interlinked roles of the three main players closely involved in the transport of the country's international trade:

- the **Government**, which designs and implements national laws and regulations regarding trade and transport;
- the **services providers** (carriers, freight forwarders, MTOs, banking institutions, insurance companies, etc.), which can offer market-oriented trade and transport solutions within the framework of national and international trade and transport practices; and

- the **transport users** (importers and exporters), which can take advantage of such solutions in their international trade transactions.

72. Such a multimodal transport approach must encompass not only the economic, commercial and operational aspects of the international movement of goods, but also all issues related to the facilitation of trade and the responsibility for the goods while in transit. To take into account all interests involved in the development of multimodal transport, the relationships between the above-mentioned players must be clearly identified and proper coordination in the implementation of improvements must be established.

73. Some of the most relevant relationships between the three players are summarized in the annex to this report. This annex shows a number of actions that could be taken by one party *vis-à-vis* another; it stresses the importance of setting up a proper consultation mechanism in a country between these players. Such a mechanism could be a Trade and Transport Facilitation Committee which has been established in various UNCTAD-executed technical assistance projects.[30] It could also take the form of a public or private initiative such as "Advantage Canada", a transportation alliance between Canada's two national railways, CN North America and CP Rail System, and all the players in Canadian cargo transportation.[31] Created to promote the greater use of Canadian transportation routings, Advantage Canada's ultimate objective is to provide a coordinated and seamless system of cargo transportation in Canada for both shippers and the transport industry. Having been designed to complement, not to substitute for, the competitive strategies and actions of its members, Advantage Canada enhances the competitiveness and quality standards of Canada's transportation system.

B. POSSIBLE BENEFITS OF MULTIMODAL TRANSPORT

74. By introducing the concept of multimodal transport, a country has the opportunity to realize synergies from the potential improvements which can be obtained from public and private interests: public administrations, state-owned and private transport companies, importers and exporters. Multimodal transport should be seen as a systems approach to trade efficiency, not as a turn-key system which can be bought and installed from one day to the next.

75. Such a systems approach calls for an integrated view of all relevant trade and transport-related issues in a country. Governments can take a leading role in supporting this approach by designing the proper legal framework and streamlining administrative bottlenecks (Customs, banking, insurance, foreign exchange controls, etc.).

76. The multimodal transport approach can promote a greater awareness of the importance of specific modal and interface improvements, and of the need for properly regulated transport operators. It can result in additional short-term benefits and longer-term consequences for all three key players: transport users, services providers and government.

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30 For example, Intermodal Transport and Customs Facilitation Projects, carried out in cooperation with the World Bank, in Ethiopia (ETH/89/014), in Pakistan (PAK/91/009) and in Mozambique (MOZ/92/A19).

31 Hassan J. Ansary, "Intermodal challenges facing Canada", *World Wide Shipping*, Blauvenlt, N.Y. September 1993, pp.72-75.

1. Short-term benefits

77. In the short term, **transport users** can expect economic and financial benefits, mainly from the greater care taken by an MTO of the goods in its custody, in the form of the following factors:

a. Reduced transit time; increased time reliability; and increased security of cargo, particularly at interface points;
b. Reduced transport costs (e.g. from negotiated rates on quantity cargo) and other associated costs (resulting from the use of modern transport-related technologies: containers, EDI, computerized cargo tracking systems, etc.);
c. Pre-agreed price for the door-to-door transport operation;
d. Closer commercial relationships with services providers;
e. Greater awareness and understanding of transport-related issues regarding their trade (INCOTERMS, cargo security, packing, insurance, banking, etc.); and
f. New trading opportunities from non-traditional exports, under the stimulus of improved transport services.

78. **Services providers** and, particularly, transport operators could gain immediate benefits from:

a. Boosting their profession as international transport operators (this is particularly true for freight forwarders becoming MTOs);
b. Increasing their local market shares and opening new markets overseas, thereby increasing their profits;
c. Increasing their financial liquidity through the collection of prepaid freight on containerized door-to-door transport contracts,[32] providing them with key financial leverage and with the possibility of sub-contracting shipping, railway and truck space at competitive rates while controlling sub-contractors' payment schedules (usually after services have been rendered);[33]
d. Commercial incentives to adapt to transport-related technologies (transfer of technology effect) such as containerization and EDI; and
e. The need to reconsider their marketing strategies and, for example, concentrate their activities in "niche" operations to serve specific commodities on specific trade routes.

79. Other local services providers, such as banks and insurance companies, will also increase their business opportunities as a consequence of increased trade transactions.

80. **Governments** can also benefit from a MT approach since it offers the opportunity to streamline and update trade- and transport-related administrative procedures and regulations. It also stimulates trade, promotes new activities for the country's transport sector and saves

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[32] This sound commercial practice might be hampered by local competitive conditions forcing the services providers to accept late payments and thus "finance" the transport costs of an international trade transaction.

[33] By providing integrated services, the MTO receives more money for transporting the cargo. For example, as the ocean portion of a MT operation often comes to only 30 per cent or less of the total freight bill, a vessel-operating MTO has more than tripled its cash flow compared to the time when the MTO provided ocean transport services only.

on (and possibly earns) hard currency.

2. Longer-term consequences

81. In the longer term, as reliable and efficient MT services develop, **transport users** will be able to look into the reorganization of their distribution outlets. This can already be seen in the European context where the simplification of border crossings and the harmonization of transport policies have fostered the development of new forms of logistics operations (e.g. networks of logistics hubs and alliances to make modal operations more efficient).

82. Under the pressure of transport users and to maintain their competitiveness, **transport operators** will have to restructure their operations, taking advantage, among other things, of joint-ventures with foreign partners. They will increasingly try to differentiate their services in an effort to gain a competitive market advantage. By offering a greater choice of available value-added services for potential transport users, they may be able to grasp larger market shares and increase their profits.

83. **Governments** will have to plan infrastructure developments and to design institutional organizations with increased attention to the needs of the transport industry so as to serve the national economy more effectively. In order to reduce the inefficiencies of the national transport and trade system, and to create an appropriate environment for the development of MT, governments will therefore have to take into consideration a number of coordinated measures such as:

a. **Regulatory measures** to harmonize transport liability regimes and insurance practices, and to provide an appropriate legal framework for the establishment and development of a private sector of local MTOs;
b. **Trade and transport facilitation measures** (Customs regulations, trade and transport documentation, EDI technology, etc.) and their acceptance by the trading community, transport operators, government agencies, banks and insurance companies;
c. **Development policy measures** to ensure the smooth development of Customs and transport operations/services and to avoid misallocation of resources, particularly regarding the computerization of the Customs administration and the improvement of physical infrastructure (Customs facilities, inland clearance depots, intermodal transfer facilities, etc.) and transport/telecommunications equipment; and
d. **Human resource development measures** to secure the adequate training of nationals from both public and private sectors (particularly freight forwarders) to improve management of transport operations and reorganization of transport enterprises.

84. These measures will have to be formulated as the result of a dynamic and progressive process supported by the necessary levels of policy analysis, conceptual innovation, research and inputs from both governmental and non-governmental experts and actors.

85. Better cooperation between the public and private sectors in the national trade and transport fields should therefore be encouraged by establishing, jointly with governments, national working groups, which can discuss and understand the issues of the MT environment and recommend policy and operational measures to governments and other parties concerned for consideration.

86. The various forms of cooperation and coordination mentioned earlier will require substantial inputs to keep all parties concerned abreast of ongoing developments in the field of MT, containerization and technological development.[34] Previous reports prepared by the UNCTAD secretariat[35] have indicated possible measures and actions to provide such inputs.

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34 Private initiatives such as the "Club of Valencia", an international group of MT specialists created at Valencia in November 1993, could channel such substantial inputs to assist the secretariat in its substantive work.

35 See UNCTAD reports on "Information material for shippers to make the most efficient use of multimodal transport" (TD/B/C.4/330), and on "Practical problems faced by governments and commercial parties involved in multimodal transport operations to and from developing countries" (TD/B/C.4/AC.11/4).

Annex

RELATIONSHIPS BETWEEN PARTIES INVOLVED IN INTERNATIONAL TRADE AND TRANSPORT

This table indicates some typical actions which could be taken by one party (shown in a row)

vis-à-vis another party (shown in a column).

Some actions by one party *vis-à-vis* another	**RULE-MAKERS**	**BUYERS and SELLERS**	**SERVICES PROVIDERS including Transport Operators**
RULE-MAKERS	■ Simplification of Customs procedures ■ Liberalization of foreign exchange controls	■ Export promotion strategies ■ Import substitution strategies ■ Customs bond and bonded warehouse systems	■ Provision of infrastucture and equipment ■ Establishment of legal requirements (licences) ■ Establishment of performance bonds ■ Liberalization of services
BUYERS and SELLERS	■ Lobby/pressure for appropriate regulations	■ Better use of aligned commercial practices ■ Better understanding of product requirements ■ Negotiating power through shippers' councils	■ Long-term partnership with selected operators ■ Better information sharing on needs to satisfy ■ Search for competitive bidding
SERVICES PROVIDERS	■ Lobby/pressure for appropriate regulations (particularly from transport operators)	■ Marketing transport and trade-related services ■ Closer relationships with clients ■ Better understanding of clients' needs	■ Strengthening of professional associations ■ Improvement of logistics for efficient transport services ■ Innovation with "niche" transport operations

Annex

RELATIONSHIPS BETWEEN PARTIES INVOLVED IN INTERNATIONAL TRADE AND TRANSPORT

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Some actions by one party vis-à-vis another	RULE-MAKERS	BUYERS and SELLERS	SERVICES PROVIDERS (including Transport Operators)
RULE-MAKERS	• Simplification of Customs procedures • Liberalization of foreign exchange controls	• Export promotion strategies • Import substitution strategies • Customs bond and bonded warehouse systems	• Provision of infrastucture and equipment • Establishment of legal requirements (licences) • Establishment of performance bonds • Liberalization of services
BUYERS and SELLERS	• Lobby/pressure for appropriate regulations	• Better use of aligned commercial practices • Better understanding of product requirements • Negotiating power through shippers' councils	• Long-term partnership with selected operators • Better information sharing on needs to satisfy • Search for competitive bidding
SERVICES PROVIDERS	• Lobby/pressure for appropriate regulations (particularly from transport operators)	• Marketing transport and trade-related services • Closer relationships with clients • Better understanding of clients' needs	• Strengthening of professional associations • Improvement of logistics for efficient transport services • Innovation with "niche" transport operations